

SEYED MOHAMMAD SHEKARABI

CURRICULUM VITAE

PERSONAL INFORMATION

Gender	Male
Address	1 st Unit , 1 st floor, No 32, Shafiee Alley, Djamal abad St., Niavaran Ave., Tehran, Iran
Telephone	+98-2122802306
Mobile	+98-9127235613
Date of Birth	August 09,1990
E-mail	m.shekerabi@ece.ut.ac.ir
Nationality	Iranian

EDUCATION AND TRAINING

	2001-2004 Allameh Helli Exceptional Talents Tehran Guidance School (NODET)
• Principal subjects/occupational skills covered	2004-2008 Allameh Helli Exceptional Talents Tehran High School (NODET) Mathematics and Physics
• Name and type of organization providing education and training	2008-Present Tehran University of Technology
• Principal subjects/occupational skills covered	Electrical Engineering (Power Engineering)
• Title of qualification awarded	Diploma in Mathematics and Physics

WORK EXPERIENCES

- Fall 2011
Instructor of General Workshop course, University of Tehran.
- 2011-Present
Teaching Robotics – Kherad Complex, Navid E Salehin Complex, Rah E Roshd Middle School, Farzanegan3 High School.
- 2008-2010
Teaching Basic Electronics , Digital Logic Design , Robotics – Allameh Helli 3 High school
- 2010-Present
Member of Electric Vehicle and Energy Lab , University of Tehran
- 2011-Present
Member of SMRL (Systems and Machines Research Lab) , University of Tehran
- February – July 2011
Member of RTEOPT (Research Team for Energy Optimization and Passive-house Technologies) for participating in U.S Solar Decathlon 2013. (The Team Will be participated in Solar Decathlon China 2013)

- 2010-2011
Member of Hybato Team (University of Tehran Team for Hybrid car competitions, Sharif University).
- Spring 2012
Teaching Assistant – Industrial Electronics Course , University of Tehran, Prof. Behzad Asaei
- Spring 2011
Teaching Assistant – Microcontroller Course , University of Tehran
- 2009-2010
Member of Advising Team – Allameh Helli Pre-University
- 2010-Present
Teaching Assistant – General Workshop, University of Tehran. Course Director : Prof. Sied Mehdi Fakhraie
- 2000-2003
Apprentice - Car electric system workshop

**PERSONAL
SKILLS
AND
COMPETENCES**

LANGUAGE SKILLS

- **Persian** Native
- **English** Upper Intermediate
- **Arabic** Familiar

TEACHING SKILLS

- **Physics**
- **Robotics**
- **Electronics**
- **Microcontroller**
- **PCB Designing**
- **Digital Logic Design**

**TECHNICAL
SKILLS
AND COMPETENCES**

PROGRAMMING SKILLS

- **C** Proficient
- **C# \ Assembly \ Javascript \ Verilog \ Basic** Intermediate
- **C++ \ Pascal \ HTML** Elementary

SOFTWARE SKILLS

- **Altium Designer \ Proteus** Proficient
- **Solidworks \ AutoCAD \ Matlab \ Protel \ Quartus \ AutoCAD \ Microsoft Office \ PSPICE \ ORCAD \ Modelsim \ Micro C PIC\ CodeVision** Intermediate
- **LabView \ HSPICE** Elementary

OTHER SKILLS

- Working with **AVR Microcontrollers** Proficient
- Working with **PIC, 8051 Microcontrollers** Intermediate
- Working with **DSPIC,DSP, ARM Microcontrollers** Elementary
- Designing **Power Electronics** circuits and PCBs Intermediate

AWARDS AND HONORS

- **First Place** of Junior Soccer Secondary 2 on 2 in 1st Iran Open Robocup International Competitions, April 2006.
- **Third Place** of Junior Soccer Secondary 1 on 1 in 4th Hellicup Competitions, February 2006.
- **Participant** in World Solar Challenge 2011 (International Competitions of Solar Car Racing) , Australia , October 2011.
- **Technical Committee** of Junior Soccer and Junior Demo League 6th Iran Open Robocup International Competitions, April 2011.
- **Technical Committee** of Junior Soccer 7th Iran Open Robocup International Competitions, April 2012.
- **Invention** of "Analog-Counter-Meter to Smart-Counter-Meter Converter", Registration No: 66182.
- **Third Place** of Junior Demo League in 7th Iran Open Robocup International Competitions. (Team Leader of Kherad2 Team), April 2012
- **Ranked 263** out of about 450,000 participants , National University Entrance Exam , 2008
- **Gold Medal**, Shemiran TaeKwonDo Competitions, 2007
- **Third Place** of Men's Air Gun in University of Tehran Internal Sport competitions, 2009
- **Participant (Coach)** in Junior Rescue in 2nd Khawrazmi Robotic Competitions, December 2009.
- **Participation** in Pathfinder League in Sharif University Competitions, December 2005.
- **Participation** in Pathfinder in 3rd Hellicup Competitions, April 2005.
- **Participation** in Pathfinder in 4th Hellicup Competitions, February 2006.
- **Participation** in Pathfinder in Intelligent Mice Competitions, Mashhad, February 2006.

PUBLICATIONS

- Morsali, H ; **Shekarabi, S.M** ; Ardekani, K; Khayyami, H ; Fereidonian, A;Ghassemani, M; Lessani , H; Mackinnon, L; , " Smart Plugs for Building Energy Management", ICSG 2012,(Will be indexed in IEEExplore).
- Morsali, H ; Bahmani, R ; **Shekarabi, S.M**; , " Smart In-Vehicle Accident Detecting and Reporting System" , 3rd ITAC conference ,(Will be indexed in IEEExplore).
- **Shekarabi, S.M** ; Khayyami, H ; Morsali, H ; Ardekani, K; Fereidonian, A; Lessani , H; , "A New Technology for Implementation of Household Energy Management in Smart Grid" , 14th Iranian Student Conference on Electrical Engineering , Presented 8th September 2011
- **RTEOPT**, "Energy analysis and Optimization of a Residential Building" Technical Conference of the Smart Sustainable City and the role of Smart Grid, Abbaspour University of Technology, Presented 9th March 2011

PROJECTS IN PROGRESS

- Designing and making 3-phase soft switching inverter.
- Smart Home Energy Moderator System (Home Display-Control, Intelligent Outlets).
- Designing and making the first Micro-Grid in Universities of Iran, University of Tehran.
- Automatic Crash Detection and Reporting System for Cars.

PAST PROJECTS

- Designing and Making **1kw** 1-phase to 3-phase **Inverter** and inductive motor driver
- Designing and Making Various **Robots** such as : Junior Soccer , Pathfinder ,Junior Rescue , Wall Climber , Slam ,and etc.
- Designing and Making : **BMS** (Battery Management System) , **Speed Indicator** , **Regenerative Break System** , and **Wireless data communication Interface** of **Persian Gazelle II** (Iranian Solar Car participated in World Solar Challenge 2011)
- **Automatic RC Meter**, with trapezoidal wave method. (Suitable for Transformers).
- Course Planning and Syllabus and Boards Design for **General Workshop** Course, ECE Department, University of Tehran. Course Director : Prof. Sied Mehdi Fakhraie
- Designing and Making **Automatic Board Tester** for **General Workshop** Course, ECE

Department ,University of Tehran

- Designing and Making **10kw H-Bridge Cell** with isolated input/output and measurement system.
- **Analog Counter-Meter to Smart Counter-Meter Convertor**
- Making Various **Microcontroller Projects** such as : Digital Oscilloscope , Signal Generator, Wireless Devices ,and etc
- Design and Make **Maze-Tilt game** With Graphical-TouchScreen user interface and ability of defining maze by user.

INTERESTS

- **Robotics**
- **Power Electronics**
- **Solar Houses**
- **Smart Grid**
- **Solar Cars**
- **Shooting**
- **TaeKwonDo**
- **Climbing**
- **Making Wooden Statues**